BENTON LAKE WETLAND MANAGEMENT DISTRICT

(Staff photo in Benton Lake NWR Narrative Report)

Personne1

Robert L. Pearson, Refuge Manager, GS-11, PFT - EOD 08/29/77
Laurence R. Veikley, Assistant Refuge Manager, GS-9, PFT - EOD 09/15/77
Elizabeth A. Benway, Refuge Assistant, GS-5, PFT - EOD 07/22/68
Vincent J. Marko, Maintenance Worker, WG-8, PFT - EOD 04/30/62
Benjamin M. Lukes, Realty Specialist - Billings Area Office stationed at Benton Lake - EOD 08/08/71
Stephan F. Jun, Bio Aid, GS-2, Temporary - 07/18 - 09/05/80
James P. Mitchell, Bio Aid, GS-2, Temporary - 07/18 - 08/29/80

Review and Approvals

Submitted by	3-5-81 Date	Area Office	Date
Benton Lake National Wildl	ife Refuge	Regional Office	Date

MONTANA.

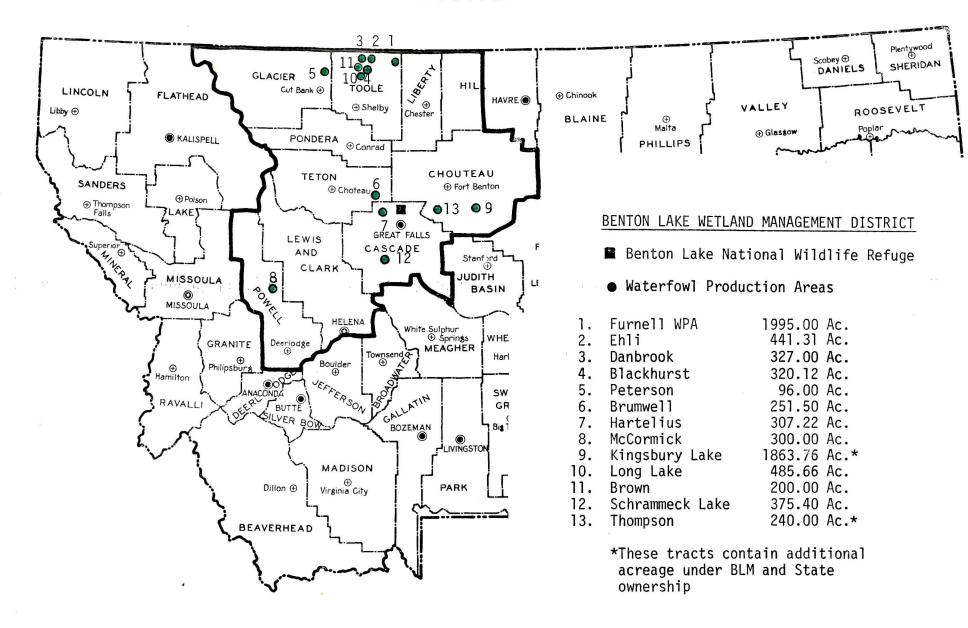


TABLE OF CONTENTS

		Page
	· I. GENERAL	
A. B. C. D.	Introduction	1 1 1 5
	II. CONSTRUCTION AND MAINTENANCE	
A. B.	Construction	7 7
	III. <u>HABITAT MANAGEMENT</u>	
A. B. C. D. E. G.	Cropland	10 20 20 21 21 21 21
	IV. <u>WILDLIFE</u>	
A. B. C.	Endangered Species	23 23 25
	V. INTERPRETATION AND RECREATION	
A. B. C.	Information and Interpretation	27 27 27
	VI. OTHER ITEMS	
A. B. C. D.	Field Investigations	28 28 28 28

I. GENERAL

A. Introduction

The Benton Lake Wetland Management District was established in 1975. Initial delineations in Montana were conducted in 1966 - 1968 by Marvin Plenert. In 1974 and 1975 Rod King completed the delineations and Realty Specialist Benjamin Lukes began acquisition in 1974. The district is comprised of ten counties and currently has waterfowl production areas and wetland easements in eight of these. WPA's are widely scattered and, in most cases, quite far from refuge headquarters. The average distance from headquarters for the 13 WPA's is 87 miles. This poses some interesting challenges to energy conservation and management.

B. Climatic and Habitat Conditions

Precipitation across the district this winter was low. This, preceded by a dry fall, resulted in poor wetland conditions in early spring. This situation resulted in breeding waterfowl concentrating on the larger, more permanent marshes. Heavy rains on Memorial Day weekend put a little water in some of the basins around Great Falls, but it came too late to affect distribution of breeding birds and may have caused some problems for early nesting birds. Further details on climate can be found in the 1980 refuge narrative report.

C. Land Acquisition

1. Fee Acquisition

Twelve tracts containing 3154.40 acres were acquired this year. Acquisition of these tracts resulted in five new WPA's for the district. In addition, there are currently signed options for five additional tracts, most of which will round out existing WPA's. One such round out at Schrammeck Lake will eliminate the need to maintain about one-half mile of boundary fence through a marsh. See Table I for a summary of WPA acquisitions through 1980.

There have been no problems in obtaining county commissioners' approval on fee acquisition this year. Realty Specialist Lukes met with the commissioners of Toole, Chouteau and Cascade Counties this year. The Cascade County commissioners received our program quite favorably after a visit to the proposed Schrammeck Lake WPA. They also valued the review process which keeps them informed of our activities in a busy county. Toole and Chouteau County commissioners expressed more skepticism of the program and viewed it as a "taking away" process whereby their counties would suffer a

lower taxable valuation, thereby resulting in lower pay standards for county employees. This appears to be a rather nebulous argument common to rural counties. The pendulum swinging effect of the past several years revenue sharing checks has not helped this problem.



Note Grazing course

This fence crossing the marsh will be eliminated after the acquisition of an additional 44.84 acres to its right. (400m) LV

2. <u>Easements</u>

Five of the ten counties have wetland easements. Seventeen tracts were acquired this year in Toole County, raising the total wetland acres protected to 5829. Table II shows the

TABLE I

FEE TITLE TRACT ACQUISITION BY COUNTY

County	No.	1976 Acres	No.	977 Acres	No.	1978 Acres	No.	1979 Acres	No.	980 Acres	No.	OTALS Acres
Cascade							1	310.00	1	375.40	2	685.40
Chouteau									7	2093.34	7	2093.34
Glacier			1	96.00							1	96.00
Powell	1	300.00		al el							1	300.00
Teton	2	251.50									2	251.50
Toole	1	1675.00			6	1408.00		r	4	685.66	11	3768.66
Totals	4	2226.50	1	96.00	6	1408.00	1	310.00	12	3154.40	24	7194.90
Total Wet- land Acres		504.00		27.00		315.00		113.00		533.00		1492.00

TABLE II

EASEMENT ACQUISITION BY COUNTY

	19	975	1	976	1	977 Wet	1	978 Wet	1	979 Wet	1	980 Wet	T0	TALS
County	No.	Wet Acres	No.	Wet Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres
Glacier			21	881	13	435	4	252	5	248			43	1816
Liberty	7	393	2	35									9	428
Pondera	3	291	4	310		¥							7	601
Teton			1	50									1	50
Toole	18	1405	8	372	3	159			10	311	17	687	56	2934
TOTALS	28	2089	36	1648	16	594	4	252	15	559	17	687	116	5829

Total Acres Under Easement

Glacier	20,982.22
Liberty	6,200.00
Pondera	8,335.00
Teton	800.00
Toole	39,956.85
TOTAL	76,27 \$.07

progression of easement acquisition here. Tracts were arranged chronologically by year according to the date of issuance of the payment checks.

D. System Status

1. Objectives

Formal objectives for the district have not been designed. Short range management plans are made for each WPA as they are acquired. Priority items include posting, fencing (where appropriate), conversion of cropland to dense nesting cover, wetland restoration, site cleanup and grassland evaluation. Once these necessities are accomplished, it is assumed that wildlife will respond regardless of the volume of paper dispersed at various office levels.

2. Funding

Table III shows the history of funding for the district. A significant and much needed boost was provided in FY 81. Naturally it is not enough, but will be put to good use if it is not cut back significantly under the new administration. For the first time, it will be possible to cost code to the wetland management district station number in FY 81 and not have the figures rejected by the Service's computer. Through the use of this and the "code as you do" system, the needs of the wetland management district should be well documented for future planning. Budget flexibility is essential in that years of large acquisition, such as this year, should be followed by amplified budgets to speed up management accomplishments. The one thing that neighboring landowners notice is new federal land sitting idle. We have received favorable comments from people who see (or percieve to see) things happening on newly acquired tracts.

TABLE III

DISTRICT FUNDING

Fiscal Year	1210	BLHP	Revolving Rehab
78 79	4,000	57,000	12,000
8 0 8 1	5,000 25,000	80,000	

Half of this year's BLHP funding will be used to establish about 800 acres of DNC, provide materials for 10.25 miles of fence, construct access roads and parking areas on two WPA's and to purchase round straw bales for placement in WPA wetland basins. The other half of this fund will be used as necessary to defer costs for the proposed refuge pump site (see refuge narrative report).

The contract fence agreement (FY 79 BLHP) was completed this spring. According to our figures, there was a balance of \$6479.77 left in this fund after all bills were paid. No engineering cost figures were received, but we were informed that about \$3000 was going to help on cost overrun at the Bowdoin headquarters project. Other than that, we have no accounting of this balance.

II. CONSTRUCTION AND MAINTENANCE

A. Construction

The BLHP fence contract was completed this spring. The product was good overall, but some minor adjustments were needed. Refuge employees installed stays in 5.5 miles of contract fence on the Furnell WPA and in 2.13 miles of contract fence on the Ehli WPA. The farm site on the Hartelius WPA was fenced out with one-fourth mile of barb wire fence and one-eighth mile of wood rail fence as per the original sales commitment. One-half mile of old fence was replaced along the county road right-of-way at the Furnell WPA. A commitment to share equally in construction of one mile of fence at Kingsbury Lake WPA was met by providing one-half mile of fence materials and allowing the adjacent landowner to build the entire mile of fence. The fence line was staked out with the assistance of the neighbor. He will receive a six month grazing allotment on the WPA in 1981.

The following WPA's were posted this summer:

<u>WPA</u>	Year Acquired
Furnell	1976
Brumwell	1976 - reposted
Peterson	1977
Ehli	1978
Danbrook	1978
Blackhurst	1978
Hartelius	1979
Brown	1980 - partially posted pending
Long Lake	roundout 1980 - Partially posted pending roundout
Kingsbury	1980 - all except one mile of new fence

B. Maintenance

Approximately 1.5 miles of old interior fence was removed under special use permit from the Hartelius WPA. During the process, part of a fence was removed that was claimed by the adjacent landowner. Since the fence was on the boundary and was in poor shape, it was agreed that he would erect one-half mile of new fence with materials supplied by the refuge. Materials were delivered late this fall.

About three pickup loads of miscellaneous wire and old metal debris were collected from the Ehli and Furnell WPA's during posting this summer. A crew of four employees spent a week in the refuge trailer while working on the Toole County WPA's. Interior fences were repaired, access gates built and water gaps completed on the Furnell WPA.





Peterson WPA
This tract was surveyed in May, 1977, but the survey markers were not guarded. All but one marker was found during this year's posting. 07/07/80

The Big Sag WPA was surveyed prior to acquisition. Assistance was given by the refuge, and fence posts were placed around the boundary to help on future fence alignment and to guard several survey markers which are placed in croplands.

About ten acres of Canadian thistle were sprayed with 2,4-D on Schrammeck Lake WPA.

C. Wildfire

Nothing to report.

III. HABITAT MANAGEMENT

A. Cropland

After a major purchase of tall and intermediate wheatgrass seed from GSA contract last year, it was brought to our attention that J. Clark Salyer Refuge had noticed some poor germination in contract seed. A sample of each lot was sent to the Agricultural Experiment Station at Montana State University. The results showed germination rates within a couple of percentage points of what the labels stated. These tests were used to calculate rates of pure live seed for bulk seeding.

Brumwell WPA

About 55 acres of cropland were planted to a DNC mixture on May 1st with a barley nurse crop. This was accomplished under a cooperative farming agreement established several years ago. The original agreement was ammended somewhat by the refuge providing fifty additional pounds of alfalfa seed and cutting the fertilizer requirements in half to compensate the cooperator for hail losses in the previous crop. The barley crop was harvested by the cooperator, and the grass/alfalfa seeding appeared to take well, despite the dry summer.

The seed mixture is as follows:

Tall wheat 4# PLS/acre
Mandan 759 pubescent wheatgrass 3# PLS/acre
Ladak alfalfa 2# PLS/acre

The seed purchases were arranged by the refuge and paid for by the cooperator.

Peterson WPA

Upon termination of a reserved farming right, about 49 acres of cropland were planted to DNC by the previous operator. The cooperator used a disc drill with an alfalfa seeding attachment and seeded the mixture directly into last year's stubble on April 29th. The mixture used in most plantings this year is as follows:

Tall wheat 4# PLS/acre Intermediate wheatgrass 4# PLS/acre Ladak alfalfa 2# PLS/acre Yellow blossom sweet clover 1# PLS/acre

No fertilizer was applied, and the seeding appeared to take well. The cost of the seeding operation was \$343.00. The seed was supplied by the refuge.

Ehli WPA

A 23 acre field planted to DNC last year developed a good stand this summer after showing little sign of growth last year. The remaining 101 acres of cropland were seeded to DNC under purchase order agreement with the previous landowner. He cultivated the stubble field and used a rod weeder to pack the seed bed. The grass/alfalfa mix was seeded on May 21st using a fertilizer spreader followed by a "wiggly" harrow. Cultivation was used on this field due to the previous year's weed problem. Nearly three inches of rain fell two days after seeding. No fertilizer was applied and the seeding appeared to take well. A considerable amount of volunteer wheat and wild oats came up with the DNC mixture, but alfalfa plants were about 10 inches tall by fall. The cost of cultivation and seeding this field was \$1464.50. The seed was supplied by the refuge.

Danbrook WPA

The current cooperator cultivated and seeded about 75 acres of cropland to DNC on June 30th under a purchase order agreement. The field was cultivated twice followed by a rod weeder for compaction. The mixture was seeded using a fertilizer spreader followed by harrows. Rain was received at the time of seeding, and a good stand developed despite the late seeding date. No fertilizer was used, and the refuge provided the seed. The cost of the field work was \$852.50.

The remaining 60 acres of cropland will continue to be farmed in a rotation of wheat and summer fallow with the refuge share left in swaths for waterfowl depredation control. The cooperators reported heavy use of these fields by early migrating ducks this fall. The refuge picked up about 200 bushels of wheat as its share after duck use. This will be stored for use in the refuge banding program.

Blackhurst WPA

A cooperative farming agreement was negotiated with the previous tenant of this tract whose farming lease ran out this year. Mr. Sandon relinquished his right to recrop 91 acres of wheat stubble. In return for the forfeiture of the government's share of last year's crop, he purchased seed and planted this 91 acres to DNC in early May for the refuge. The mixture was drilled directly into the wheat stubble with a shoe type grain drill. No fertilizer was applied. The refuge arranged the seed purchase. The mixture planted here was the same as for the Brumwell WPA. A similar arrangement is in line for 1981 concerning 99 acres. Thereafter, some 83 acres will be divided and farmed for depredations as on the Danbrook WPA. This unit received heavy hail damage this summer but the DNC planting appears to have taken hold well.



Ehli WPA
The first year's growth of a 1979 DNC planting consisted mostly of volunteer barley.
DNC on right.
03/26/80 LV



The second year of growth on the same planting shows the excellent take of alfalfa. Grasses became visible later and were of mixed density. 06/27/80



 $\frac{\text{Danbrook WPA}}{\text{The entire south field was planted to DNC this}}$ spring. The rest of the cropland will be farmed cooperatively for depredation control. 05/13/80 LV



 $\frac{\text{Blackhurst WPA}}{\text{About 25 pairs of pintails crowded into what water remained on this marsh. Ninety-one acres of DNC were planted this spring.}$

Hartelius WPA

Approximately 170 acres of cropland were lightly tilled with a double disc and harrow under a purchase order agreement. A refuge crew using two drills, a brillion grass drill and a disc drill with an alfalfa seeding attachment, seeded the field to DNC on May 1st. The cost of cultivation was \$950.00. No fertilizer was applied, and the seeding took well. A heavy weed/wild oats problem developed on the site and complaints were received from the neighbors. A special use permit was issued and the worst weed areas were hayed in August. An additional 26.5 acres were swathed by the permittee at a cost of \$172.25 to the refuge. This was too weedy for him to use as hay. The remaining 30 acres of cropland were flooded in the spring of 1978 and came up to Kochia and foxtail barley. It was left in this condition since it will be periodically flooded anyway.



Hartelius WPA

Despite this bleak appearance in May, a nesting pintail was observed during DNC planting activities. All cropland pictured was seeded.

05/13/80

LV

Schrammeck Lake WPA

An agreement with the landowner was negotiated this spring whereby he let the refuge plant about 65 acres of his wheat stubble to DNC prior



Our BLHP tractor with Brillion grass drill was used for seeding DNC in fields relatively free of rocks. 80-3-1



The same tractor with the old John Deere 20 \times 7 disc drill proved effective for seeding DNC directly into stubble. 80-1-19

to the closing date for the tract. The DNC seed was planted in mid April by using a John Deere 20 x 7 disc drill with an alfalfa seeding attachment. The mixture was drilled directly into the stubble and a good stand developed. No fertilizer was applied. The remaining 58 acres will be treated similarly in the spring of 1981. A slight weed problem developed which would not have been serious except that the landowner had to cross these weedy strips to harvest his last crop. He was paid \$422.50 to swath the entire 65 acres of DNC and weeds. This should benefit next year's growth by removing some of the competitor plants. The closing date was delayed until winter and the planting probably received some grazing as a result. The weather was not reliable enough to merit the initiation of a boundary fencing project at that time.



Schrammeck Lake WPA
This unit will require fencing next year and an access road must also be constructed. The stubble strips were planted to DNC in April. 05/13/80



Schrammeck Lake WPA
Seeding operations at Schrammeck Lake were
pleasurable in this pleasant setting.
04/80 LV

Kingsbury Lake WPA

This WPA came complete with $\frac{275}{250}$ acres of cropland under an active farming lease through 1982. Prior to the acquisition, a cooperative farming agreement was negotiated which will result in the entire 275 acres being planted to DNC by 1983. The government's share was forfeited in return for the tenant's purchase of seed, tilling, seeding and fertilizing the DNC. It would have been desirable to start the DNC plantings earlier, but the entire land purchase hinged on the farming agreement. Half of the acreage will be planted in the spring of 1982, and half in 1983. Current harvest figures are being monitored to prevent future problems in the agreement.

Brown WPA

This unit includes 166 acres of cropland. It was received too late in the year to initiate any DNC planting. About 66 acres will be farmed for depredation control using the former tenant. This is a commitment made during the purchase negotiations. This field lies adjacent to one of the local fields which suffered severe depredation last year and will be farmed by the same man who endured the loss. A challenge may be at hand.



Kingsbury Lake WPA
This large body of water provides one of the best opportunities for Canada goose nesting improvements in the wetland management district. 05/13/80

Long Lake WPA

This WPA was also received too late in the year to start any grass seeding. It contains nearly 315 acres of cropland. Under FY 81 funding, most or all of this will be seeded to DNC in 1981.

Big Sag WPA

The refuge will seed 51 acres of summer fallow to DNC in the spring of 1981.

For a summary of DNC planting activities in the district, see Table IV. In addition, there are 82 acres of cropland forthcoming in land currently under signed options.



Long Lake WPA

Most of the Toole County WPA's can be seen in this composite.
The outlines include several tracts currently under option.

05/13/80

LV

TABLE IV
WETLAND MANAGEMENT DISTRICT CROPLAND ACRES

WPA	Total	DNC_	Native Grass	Depredation Farming	Future DNC
Furnell Brumwell	150 55	55	150		
McCormick P eter son Ehli	49 124	49 124		-	=
Danbrook Blackhurst Hartelius	135 274 217	75 91 187	30*	60	183
Brown Long Lake Kingsbury Lake	166 314 .66 275	107	30	66	100 314.66 275
Big Sag Schrammeck Lake	51 123	65			51 58
Totals *volunteer	1933.66	646	180	126	981.66

B. Grasslands

At the close of the year the district had 3829.77 acres of native grass-land under management. Mr. Aiken grazed 480 AUM's on the Furnell WPA as per his reserved right permit. Some trespass grazing was noted on the Peterson WPA which is not fenced. Some grazing probably occurred on the Schrammeck Lake WPA as previously stated.

Mr. Buchanan was allowed to finish out his grazing program at Kingsbury Lake WPA since he had paid for the grazing lease on the adjacent unfenced state lands. The two state leases were then turned over to the FWS and will require an annual payment of \$500 to prevent them from going to another rancher. This annual fee will be paid by the Regional Office out of 3120 Realty Migratory Bird Funds.

Native grasslands on all WPA's are in good shape with the exception of the Furnell WPA. Grazing on this tract will terminate following the 1983 season, whereupon the range will receive a much needed rest.

C. Wetlands

Wetlands through the district were at about 25% of capacity in early spring. Brumwell, Hartelius, Blackhurst and Ehli WPA's dried up completely early in the summer. Precipitation was so intermittant that Big Sag and Brown dried up completely by late summer. Only the

most permanent wetlands remained on the Furnell and Peterson tracts. Wetlands remained low but acceptable at Kingsbury Lake, Long Lake, Schrammeck Lake and Danbrook WPA's. McCormick WPA was not inspected. At the close of the year the condition remains the same across the district. A good spring runoff is needed to fill all wetlands.

D. Forest Land

Nothing to report.

E. Other Habitat

Nothing to report.

F. Wilderness and Special Areas

Nothing to report.

G. Easements for Waterfowl Management

An aerial easement inspection flight was made on November 4, 1980. Wetlands were sometimes hard to spot because of the dry summer, and the pothole areas looked rather bleak. Some farmers took advantage of the dryness by draining wetlands south of the Tiber Reservoir and bleeding them off into the breaks. Although not a lot of this activity is noticed, there is always some. One new dugout was documented in an easement basin. A ditch was noticed on Toole County (49X) and was investigated. It turned out to be an old ditch that was neglected in the easement documents. Mr. Lukes corrected the error and maintained that the basin held water in spite of the old ditch. The flight consumed 14 staff hours and \$490.00 for aircraft/pilot rental.

Last year Toole County easement (20%) was noticed with extensive excavation around the wetland. Investigation revealed that the contractor for the Montana State Highway Department had bought fill from the easement holder to use in the interstate highway construction. They had worked around the wetland. State Highway Department surveyors had surveyed the area of excavation around the wetland and documented that the basin probably would drain out since the dirt was removed around it. An agreement was made with the contractor that they would construct a small berm around the wetland basin involved. A letter was sent to the easement holder reminding him of his responsibility for notifying such operators about the provisions of the easement. No legal action was taken. While the wetland is restored, it is not known how much effect the loss of watershed around the basin will have.

Updated requests for easement aerial photographs were submitted to the Area Office, and new easements were logged and filed.



There have been many arguments pro and con on the taking of wetland easements. Even as these discussions occur, dozens of wetlands across the pothole country silently scream out - - - and are gone forever. Neither of these wetlands is under easement.

80-3-18 80-3-17 LV



IV. WILDLIFE

A field report form was developed for use when WPA's are visited. This form enables the observer to tally various forms of wildlife activity with a minimum of inconvenience. Considering the distances involved and the infrequency of visits to WPA's, this will provide much needed, though minimal, wildlife census information for future reference. Data from a breeding pair count and these field reports have been used in compiling this section of the report. A sample of the report form is included at the end of this report.

A. Endangered Species

Bald eagles and peregrine falcons are present in the district. No sightings of either were made this year.

B. Migratory Birds

Waterfowl

Breeding waterfowl were concentrated on permanent water areas this spring as many of the Palustrine emergent wetlands were dry or nearly so. Breeding pair counts for the district increased this year due to the acquisition of three of these more permanent wetlands (Schrammeck Lake, Long Lake and Kingsbury Lake). Brown WPA is closely associated with Long Lake but its wetland is not nearly as reliable.

Duck production on WPA's was estimated at 2.96 young per available wetland acre by using breeding pair counts and 50% nest success. Brood sizes were taken from Hammond's "Waterfowl Brood Survey Manual", 1970. The large water bodies found at Long Lake and Kingsbury Lake WPA's tend to dilute the number of birds produced per wetland acre.

As per instructions from Denver, no production was reported for wetland easements this year.

An estimated 25 Canada geese were produced on WPA's this year. No goose nesting site improvements have been undertaken yet, but an attempt will be made to have some round bales present for next spring's arrivals.

TABLE V

WATERFOWL PRODUCTION - FEE AREAS

		979		1980		
Tract	Pairs	Production	Pairs	Production		
McCormick Brumwell Peterson Furnell Ehli Danbrook Blackhurst Long Lake Brown Schrammeck Lake Kingsbury Lake Hartelius	40 462 56 32 405 82 78	105 1485 180 100 1330 255 260	11 - 85 101 58 109 27 358 241 92 288	25 Dry - 245 305 170 330 115 1070 695* 280 835 Dry -		
Total *Associated with	1155 Long Lake	3715	1370	4070		

2. Marsh and Water Birds

Eared grebes nested in colonies on Kingsbury Lake and Long Lake. They appear to use whatever water areas are available as long as they are not too shallow. Horned grebes were observed at Furnell WPA again this year and are presumed to have nested in that vicinity. A pair of sandhill cranes frequented Schrammeck Lake all summer, but no young were observed. They probably moved back and forth between there and the nearby wooded Missouri River bottom. Great blue herons were also observed at Schrammeck Lake this year.

3. Shorebirds, Gulls and Terns

Shorebirds observed this year include killdeer, willet, American avocet, Wilson's phalarope, upland sandpiper, long-billed curlew and marbled godwit. All of these are believed to nest in the district. Ring-billed and California gulls were also observed.

4. Raptors

Marsh hawks, kestrels, red-tailed hawks and ferruginous hawks were seen this year. A nest containing three ferruginous fledglings was observed at Kingsbury Lake.



Ferruginous hawks nested along the rimrock surrounding Kingsbury Lake. Fledglings are sitting in the nest.

07/01/80

LV

Prairie falcons, Swainson's hawks, rough-legged hawks and golden eagle are also present in the district.

5. Other Migratory Birds

Common night hawks were found nesting on the Furnell WPA this year. Two nests were found located in very short vegetation close to rocks which were relatively flat to the surface of the ground. Evidence was found to suggest that at least one pair of Say's phoebes nested in the old buildings left on the Blackhurst WPA. When these buildings are removed the phoebes will have to look elsewhere for nesting habitat. Crows, lark buntings, mourning doves and bobolinks were also observed in the district this year.

C. Mammals, Non-Migratory Birds and Others

1. Game Mammals

Mule deer, white-tailed deer and pronghorns are commonly seen on the various WPA's. The establishment of DNC will probably prove beneficial to the white-tailed deer of the open plains area.

2. Other Mammals

The following small mammals were observed on WPA's this year: skunk, raccoon, muskrat, badger, porcupine, coyote, red fox, black-trailed prairie dog, white-tailed jackrabbit and yellow-bellied marmot.

3. Resident Birds

Hungarian partridge are found on most of the WPA's. Sharptailed grouse are prevalent on several tracts with an active dancing ground on the Ehli WPA. Ring-necked pheasants can be found occasionally on several WPA's. All these species should be helped by the development of DNC.

4. Other Animal Life

The fish pond at Furnell WPA suffered under the dry summer, and low water levels were likely detrimental to fish populations there. On May 13 about 1500 three inch rainbow trout were stocked in the pond. This seems to be a very marginal fishery.

Several reptiles were observed on Kingbury Lake WPA during posting activities. Bull snakes, garter snakes, horned toads and racers were seen.

V. INTERPRETATION AND RECREATION

A. Information and Interpretation

1. On Refuge

An informational map was developed and printed on our Saxon copier (sample attached). It wasn't long before it was out of date, but it will be updated for next fall.

2. Off Refuge

The refuge held a public meeting at Sunburst, Montana, to inform the Toole County public about our activities there. The meeting was well publicized but received scant attendance. Eight people attended, two being county commissioners. Our program was explained with little interaction from the group. One prospective seller was identified after the meeting, and the most dramatic event of the day happened when two local dogs were hit by a motor vehicle.

B. Recreation

Wildlife Oriented

There are no public use surveys conducted on WPA's. Those tracts that still held water were utilized for waterfowl hunting to some degree. Upland game and big game hunting also occurs. Evidence was found which indicated muskrat trapping activity on the Peterson WPA. Trapping undoubtedly occurs on most areas due to its popularity in Montana. The Furnell pond was subject to some fishing use during the summer. Estimates of such uses are provided as a courtesy to the RMIS system grinder.

2. Non-Wildlife Oriented

Some snowmobiling activity occurs on Kingsbury Lake and probably some other areas. Coyote chasing is probably the major wildlife harrassment which results. Its effects are considered minimal and enforcement activities are not justifiable. Efforts are made to advise potential snowmobilers by placing "no vehicle" signs near entrance points.

C. Enforcement

No enforcement activities were conducted on WPA's. The travel distances involved preclude an effective enforcement program with a four person staff.

VI. OTHER ITEMS

A. Field Investigations

Nothing to report.

B. Cooperative Programs

The 40 foot right-of-way at Furnell WPA was planted to native grasses by Montana Power Company in February. The results will take a few years to conclude.

Montana Department of Fish, Wildlife and Parks are continuing to monitor the Furnell fish pond for success and problems.

This year a cooperative effort was made with the Triangle Conservation District to monitor saline seeps on Tract (73) of the Long Lake WPA. A total of 12 four inch diameter wells were drilled at various locations to measure the depth of the water table. Seven of these wells were cased with PVC pipe and will be monitored for some time in the future.

Their recommendations include planting grasses directly on the seep sites and alfalfa and altai wildrye on the recharge areas. The seep areas and the alfalfa then should be mowed prior to winter to avoid snow collection. These proposals pose some conflicts with our management objectives. The entire area was planned to be dense nesting cover seeded next spring. Further investigation will be conducted to determine the species best suited for use on this site.

C. Items of Interest

Revenue Sharing checks to counties for the 1979 fiscal year were as follows:

Glacier County	\$	102.00
Powell County		696.00
Teton County		399.00
Toole County	3	,480.00

This report was written by Veikley, edited by Pearson, and typed by Benway.

D. <u>Safety</u>

Regular Safety meetings are conducted in conjunction with refuge activities. No accidents occurred.

WPA FIELD REPORT

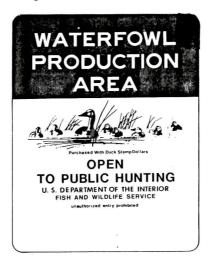
Unit	Date _		Observer
Geese	Breeding	Pair/Brood	Information
Swans			
Coot			
Mallard			
Gadwall		Raptors	
Pintail			
G-W Teal			
B-W Teal		Shorebirds	
Am. Wigeon			
N. Shoveler			
Redhead		Waterbirds	<u>.</u>
Ring-Necked			
Canvasback		0-11-7	
Lesser Scaup		Gulls/Tern	<u>1S</u>
Bufflehead			a.
Ruddy		Mamma1s	
Goldeneye			
Other		0.11	
Migration Notes:		Other	

WATERFOWL PRODUCTION AREAS

Administered from

BENTON LAKE NATIONAL WILDLIFE REFUGE

Box 450 Black Eagle, Montana 59414 - 727-7400



WATERFOWL PRODUCTION AREAS (WPA's) are purchased with duck stamp dollars and are open to public hunting and trapping in accordance with State regulations. The following restrictive regulations also apply on WPA's.

- A. Camping is prohibited.
- B. Driving off established roads is prohibited.
- C. Open fires are prohibited.

Directions to the WPA's illustrated on the map are as follows:

- 1. $1\frac{1}{2}$ miles west and 2 miles south of Whitlash, Montana
- 2. 8 miles east of Sweetgrass, Montana
- 3. $\underline{6}$ miles east and $\underline{1}$ mile south of Sweetgrass, Montana
- 4. 4 miles north of Ferdig, Montana
- 5. $\underline{13}$ miles north, $\underline{4}$ miles east and $\underline{1}$ mile north of Cut Bank, Montana
- 6. $5\frac{1}{2}$ miles north of Power, Montana
- 7. 5 miles north of Vaughn, Montana
- 8. ½ mile northeast of Brown's Lake
- 9. $\underline{1}$ mile west and $\underline{4}$ miles south of Geraldine, Montana (Kingsbury Lake)
- 10. $\underline{3}$ miles east and $\underline{2}$ miles north of Sunburst, Montana
- 11. 4 miles east and 1½ miles north of Sunburst, Montana

. ANATNOM

